AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A bias sputtering film forming process for forming a thin film by applying both voltages of a cathode voltage and a substrate bias voltage, wherein a thin film is formed on a substrate whereon an irregularity is formed in the state wherein only the cathode voltage out of said both voltages is applied, and sputtering film forming is performed while continuously varying said substrate bias voltage so that the thickness of said thin film formed on the surfaces on the sidewalls and on the bottoms of said irregularity is substantially uniform, wherein said substrate bias voltage corresponds to a stored substrate bias voltage value in a database stored in a control system.

2. (Original) The bias sputtering film forming process according to claim 1, wherein said cathode voltage is also varied, in said bias sputtering film forming performed while varying said substrate bias voltage.

3. (Original) The bias sputtering film forming process according to claim 1 or 2, wherein sputtering particles coming from a target enter substantially vertically in said substrate.

4. (Original) The bias sputtering film forming process according to claim 1 or 2, wherein said thin film is used as a barrier layer, or a seed layer for electrolytic plating.

5. (Previously Presented) A bias sputtering film forming apparatus comprising an AC power source or a DC power source of variable output against substrate electrodes and a database stored in a control system, wherein said control

system makes the cathode voltage set to a predetermined voltage previously, stores the substrate bias voltage value in the database when the substrate is apart from the target by a predetermined distance and the thickness distribution of thin films on each of said surfaces corresponding to said substrate bias voltage value as reference data, and controls the output of said power source such that it is continuously varied based on bias voltage functions produced by selecting the substrate bias voltage value from the database, that makes said film thickness substantially uniform from said reference data when each of said surfaces is formed.

6. (Original) The bias sputtering film forming apparatus according to claim 5, in which said apparatus further comprises a power source of variable output against said cathode, wherein said control system also varies the cathode voltage by controlling the output of said cathode power source, in said bias sputtering film forming performed by controlling the output of said substrate power source based on said bias voltage functions.